



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: application of: Bernardi et al.

Attorney Docket No. 01-4962

Application No: 09/854,304

Examiner: Briney III, Walter F

Filed: May 11, 2001

Art Unit: 2615

Title: Auto-Adjust Noise Canceling Microphone
with Position Sensor

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the US Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on September 7, 2007.

Signed: _____

Typed Name: Jung-hua Kuo

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant requests review of the final rejection mailed on July 14, 2005 in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheets (4 pages).

Note: No more than five (5) pages may be provided.

I am the:

- ☒ attorney or agent of record. Registration Number 44,780.
☐ attorney or agent acting under 37 CFR 1.34. Registration Number _____.
☒ If the required fees are missing or any additional fees are required during the pendency of the subject application, please charge such fees or credit any overpayment to Deposit Account No. 50-2315 (Order No. **01-4962**). A copy of this sheet is enclosed.

Respectfully submitted,

September 7, 2007

Date

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Signed: _____

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Reasons For Pre-Appeal Brief Request For Review

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The reasons for the Pre-Appeal Brief Request for Review are set forth below.

In rejecting claims 1-3, 6, 10, 13-15, 19, 22, 24, 28, and 33 under 35 U.S.C. §102(b), the Examiner did not establish that Ruegg (USPN 3,875,349) discloses each and every element of the claimed inventions

Claims 1-3, 6, 10, 13-15, 19, 22, 24, 28, and 33 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ruegg.

Ruegg's hearing aid contains two microphones 11 and 12, only one of which is utilized to generate the second output 24 of the amplifier 19. In particular, although the reversing switch 23 is physically coupled to both microphones 11 and 12 as shown in FIG. 2, the reversing switch 23 is nonetheless merely an automatically controlled electronic reversing switch 23 (instead of the reversing switch 22 shown in FIG. 2) that is only alternately receiving audio signals from only one and not both of the two microphones 11, 12. See col. 3, lines 16-18.

Thus, the second output 24 of the amplifier 19 is generated based on the signal from one, not both, of the microphones 11 and 12. The second output 24 controls the switch element 25 which in turn controls which output signal 13 or 14 to which the reversing switch 23 is coupled.

(FIG. 2 and col. 3, lines 14-40). In other words, any “error signal” produced by the reversing switch 23 and/or the amplifier 19 is based on only the output signal 13 from the omnidirectional microphone 11 or the output signal 14 from the directional microphone 12, not both.

In contrast, each of independent claims 1, 19, 22, and 28, as amended, generally recites a system, headset, or method in which first and second microphones of an acoustic pick-up device receive acoustic signals from an acoustic source, a position estimation circuit produces an error signal from audio signals transduced by both the first and second microphones, and a controller that uses the error signal to compensate for the acoustic pick-up device being mispositioned by providing the audio signals from the first and/or second microphones to an output.

For example, independent claim 1 recites that the position estimation circuit is adapted to produce, from the audio signals of both first and second microphones, the error signal.

Independent claims 19, 22, and 28 recite similar elements.

The Examiner states on page 4, line 5-8 of the final Office Action dated March 7, 2007 that “although each independent claim generates an error signal based on signals from both microphones, there is no language in the claims requiring that such generation occurs through simultaneous consideration of first and second microphone signals.” However, each independent claim clearly recites that the error signal is generated from audio signals transduced by both the first and second microphones.” Such language clearly requires that signals from both the first and second microphones be used in generating the error signal. No further specification of “simultaneous” use of the audio signals from the first and second microphones is needed to establish that the position estimation circuit uses signals from both the first and second microphones to generate the error signal.

As is evident, Ruegg fails to disclose or suggest a position estimation circuit that produces the error signal from audio signals generated by the first and second microphones.

Not an Error Signal

Furthermore, the control signal generated by Ruegg estimates whether the user is in a conversation with another person or in a general background of sounds, such as being in traffic, and is *not an error signal* that estimates the device being mis-positioned. As such, the switching between the omnidirectional and directional microphones is not performed to compensate for the hearing aid being mis-positioned. Thus, Ruegg also fails to or suggest a controller that uses the

error signal to compensate for the acoustic pick-up being mis-positioned by providing the audio signals from the first and/or second microphones to the output.

Withdrawal of the rejection of independent claims 1, 19, 22, and 28 as well as claims 2, 3, 6, 10, 13-15, 24, and 33 dependent variously therefrom, under 35 U.S.C. §102(b) is respectfully requested.

In rejecting claims 1 and 7-9 under 35 U.S.C. §103(a), the Examiner did not establish that Killion et al. (USPN 5,524,056) in view of Ruegg renders the claimed inventions obvious

Claims 1 and 7-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Ruegg.

However, the combination of Killion in view of Ruegg also fails to result in the inventions as claimed for the same or similar reasons as described above. In particular, both Killion and Ruegg fails to disclose or suggest that an error signal be produced from the audio signals of both microphones.

Withdrawal of the rejection of claims 1 and 7-9 under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Ruegg is respectfully requested.

In rejecting claims 1, 4, 5, 11, 12, 19-23, 25, 27, and 29-32 under 35 U.S.C. §103(a), the Examiner did not establish that Hagen et al. (USPN 6,389,142) renders the claimed inventions obvious

Claims 1, 4, 5, 11, 12, 19-23, 25, 27, and 29-32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen.

Again, Hagen employs a switch S1 that cannot allow the amplifier 66 (FIG. 4) to use the audio signals from both microphones to determine an error signal. In particular, when the switch S1 is open, the amplifier 66 receives audio signals from only one microphone (MIC F) , not both microphones. When the switch S2 is closed, the signals from both microphones (MIC B and F) are summed at node 46 and because the summed signal is only one signal, an error code cannot be generated. Thus, Hagen does not disclose or suggest the inventions as claimed.

Withdrawal of the rejection of claims 1, 4, 5, 11, 12, 19-23, 25, 27, and 29-32 under 35 U.S.C. 103(a) as being unpatentable over Hagen is respectfully requested.

Conclusion

Because the Examiner's rejections of claims 1-43 include legal deficiencies with regard to under 35 U.S.C. §102(b), 35 U.S.C. §103(a), and the MPEP, Applicants are entitled to a pre-appeal brief review of the final rejection. And based on the foregoing arguments, Applicants request that the rejection of these claims be withdrawn and the pending claims be allowed.

If the required fees are missing or any additional fees are required during the pendency of the subject application, please charge such fees or credit any overpayment to Deposit Account No. 50-2315 (Order No. **01-4962**).

Respectfully submitted,



September 7, 2007

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